Before the

Federal Communications Commission

Washington, DC 20554

In the Matter of	)	
	)	
Spectrum and Service Rules for	)	IB Docket No. 07-253
Ancillary Terrestrial Components in	)	RM-11339
the 1.6/2.4 GHz Big LEO Bands	)	

Comments of Nortel

Nortel is pleased to have this opportunity to file these comments in response to the Commission's notice of proposed rulemaking. *Second Order on Reconsideration, Second Report and Order, and Notice of Proposed Rulemaking, Adopted November 7, 2007; Released November 9, 2007; FCC 07-194; 22 FCC Rcd 19733 (2007).*

Nortel is a recognized leader in delivering wireless and wireline communications capabilities that serve both service provider and enterprise

customers. Nortel delivers innovative technology solutions encompassing wireless broadband, end-to-end broadband, Voice over IP and multimedia. Nortel's expertise in advanced radio technologies forms the basis for Nortel's interest and comments in this proceeding. Nortel is a strong proponent of spectrum efficiency which includes using spectrum to the maximum extent feasible without causing harmful interference to other authorized users.

Use of guard bands in appropriate situations can play an important part in ensuring the efficient use of spectrum.

The Commission has asked for comment on the extent to which guard bands are needed in the deployment of ATC in the Big LEO bands. Nortel's fundamental position is to use guard bands sparingly or not at all in order to maximize the utilization and value of the available spectrum. In view of the high demand for spectrum, Nortel believes this to be efficient engineering practice and consistent with good public policy.

In the situation where two TDD systems with compatible technology are operating in adjacent bands, and overlap geographically, if the two operators synchronize their networks, then no guard bands are necessary. This allows both operators to maximize the use of their spectrum and optimize performance.

In the case of WiMAX technology, the following considerations apply:

- Synchronization would require both operators to agree on the TDD ratio (DL: UL) to be used, e.g. 2:1.
- The WiMAX standard specifies 5ms frame length and GPS synchronization to within 1μs, however, operators do not need to have a common GPS source.

If the ATC spectrum is approved for TDD operation, and compatible technologies are selected (e.g. WiMAX), the ATC band could be extended from 2483.5MHz -2495MHz without additional guard bands, provided synchronization is utilized.

These comments do not cover the scenario where adjacent operators have respectively chosen to use TDD and FDD systems. A guard band is necessary when operators use different duplexing schemes.

Respectfully submitted,

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